

3:30 – 5:15 Bringing the Technologies to Markets
Sandra Begay-Campbell, Session Chair

Sandra Begay-Campbell, Sandia National Laboratories,
The Solar Way: Empowerment for Native Americans

John Wiles, Program Manager, New Mexico State
University/Southwest Technology Development Institute,
*Technical Assistance Activities to Bring the Technologies
to Markets*

Bill Black and Greg Kolb, Sandia National Laboratories;
*Solar Energy Assessment for Department of Defense
Applications*

Ezra Auerbach, Chairman, North American Board of
Certified Energy Practitioners

Ernesto Terrado, The World Bank; *PV for Off-Grid
Electrification: Realities of the Global Market*

5:15 Closing Remarks

5:30 Adjourn

1 7 t h o **Friday, October 17** c t o b e r

Optional Tours

8:30 Tour 1: Leave the hotel (by bus) for a tour of Sandia
National Laboratories solar facilities. Must register in
advance. Limited to U.S. citizens.

Tour 2: Leave the hotel (by van) for a tour of
Southwestern Indian Polytechnic Institute's solar
installations

12:00 Return to Sheraton Uptown Hotel

Solar Energy Technologies Systems Symposium

October 15-17, 2003

**Hosted by Sandia National Laboratories
Albuquerque, New Mexico**



Solar Energy Technologies Systems Symposium

Sponsored by U.S. Department of Energy and Sandia National Laboratories
Sheraton Uptown, 2600 Louisiana Blvd. N.E., Albuquerque, New Mexico
October 15 - 17, 2003

Research and Development for Tomorrow’s Solar Applications

1 4 t h o Tuesday, October 14 c t o b e r

6:00 pm Early Registration and Reception

1 5 t h o Wednesday, October 15 c t o b e r

Opening Session
Charles Hanley, Symposium Chair

10:30 – 12:00 DOE’s Systems-Driven Approach: Overview and Applications
Charles Hanley, Session Chair

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| 7:45 | Coffee and Continental Breakfast | |
| 8:30 | Opening Remarks Craig Tyner, Program Manager, Sandia National Labs | Jonathan Hurwitch, Sr. Vice President, Sentech,Inc., <i>DOE Solar Program’s Multi-Year Technical Plan</i> |
| 8:35 | Welcome Raymond Sutula, Director, U.S. Department of Energy, Solar Energy Technologies Program | Mark Mehos and David Mooney, National Renewable Energy Laboratory, <i>Developing a Systems Analysis Modeling Tool</i> |
| 8:40 | Welcome Margie Tatro, Director, Energy and Transportation Security Center, Sandia National Laboratories <i>The Role of Solar Energy Technologies in a National Security Context</i> | Scott Jones, Sandia National Laboratories; Hank Price, National Renewable Energy Laboratory, <i>Application of the Systems-Driven Approach to Solar Trough and Tower Technologies</i> |
| 9:00 | Keynote Herb Hayden, Arizona Public Service <i>Bridging the Gap: R&D to Help RPS Succeed</i> <i>APS Views on Bringing Solar To the Utility Market</i> | Ward Bower, Sandia National Laboratories, <i>Advanced Systems Concepts</i> |
| 9:30 | Keynote James Maughan, Director, Power Systems Research, GE Global Research <i>GE’s Focus on Renewable Energy Systems Technology and Markets</i> | |
| 10:00 to 10:30 | Break | |

12:00 – Lunch Provided at the Sheraton
Luncheon Speaker: Larry Kazmerski, Director, National Center for Photovoltaics
“50 Years Since Bell: So What’s New”
(A systems-forgiven approach to technology, roadmap, plans, and predictions)

1:30 – 3:15 Industry Perspectives on the Systems-Driven Approach
Michael Quintana, Session Chair

Dan Shugar, President, Powerlight Corporation, *Role of Benefits in Systems-driven Photovoltaic Markets*

Gilbert Cohen, Vice President of Engineering and Operations, Solargenix Energy

Thomas Hansen, Vice President, Technical Advisor to the CEO, Tucson Electric Power, *Systems-Driven Approach: A Real World Experience*

Marc Cortez, Director of Marketing, Shell Solar Industries

Chris Sherring, Vice President, WorldWater Corporation, *Extending the Systems-Driven Approach with PV to Provide Continuity of Supply in the Event of Grid Outages*

3:15 - 3:45 Break

7:00 pm – Banquet at the Sheraton
Invited Speaker: The Honorable Bill Richardson, Governor of New Mexico

1 6 t h o Thursday, October 16 c t o b e r

8:30 – 10:00 Assessing and Improving System Performance
David King, Session Chair

10:30 – 12:00 Assessing and Improving System Reliability
Larry Moore, Session Chair

David King, Sandia National Laboratories, *Power and Energy: Status of Array Design, Rating, Monitoring Methods*

Mike Pelosi, Maui Solar, *System Design and Performance Monitoring Tools*

Miles Russell, RWE Schott Solar, *Predicted and Measured Performance for 10 Similar PV Systems in Wisconsin*

Hunter Fanney, National Institute of Standards and Technology, *PV Module Testing and Modeling for Building-Integrated Applications*

Scott Canada, Arizona Public Service; Larry Moore, Sandia National Laboratories; *Off-Grid Hybrid Systems: Maintenance Costs*

Charles Andraka, Richard Diver, Sandia National Laboratories; *Developmental Reliability Improvement of a Dish Stirling System*

James Dunlop, Florida Solar Energy Center; *The JEA Experience with Small Grid-Tied PV Systems*

Peter McNutt, National Renewable Energy Laboratory, *Complementing Reliability with Recommended Practices for Testing Fielded PV Systems*

12 o’clock noon – Lunch Provided at the Sheraton
Lunch Speaker: Richard King, DOE – American Solar Challenge 2003

1:30 – 3:00 Balance-of-Systems
Jerry Ginn, Session Chair

Chuck Whitaker, Endecon Engineering, *BOS Experience in CEC PIER Projects*

Ray Hudson, Xantrex Technology, Inc., *Inverter R&D Issues and the DOE Systems-Driven Approach Workshop*

John Boyes, Sandia National Laboratories, *Energy Storage and Photovoltaics*

Sigifredo Gonzalez, Sandia National Laboratories, *High Reliability Inverter Initiative*

3:00 – 3:30 Break